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REMARKS

Applicant respectfully requests that the instant application be reconsidered in light of the above amendments and the following remarks.

Claims 1-4, 7-11, 14-16, and 20 have been amended.

Claims 17-19 and 20-21 have been withdrawn.

Claims 5 and 6 have been cancelled.

New Claims 23-33 have been added.

Response to Restriction Requirement Pursuant to 35 U.S.C. §121

In compliance with the Restriction Requirement pursuant to 35 U.S.C. §121, Applicants affirm the election to prosecute Group I, Claims 1-16 and 20, with traverse. This election is being made without prejudice to Applicants' rights with respect to Claims 17-19, 21 and 22, including the right to file divisional applications thereon. Accordingly, Claims 17-19, 21, and 22 hereby withdrawn from further consideration.

Objections

Examiner has objected to the Abstract. Accordingly, the term "on aryl groups with styrene" has been deleted.

Claim Rejections Under 35 USC §112, first paragraph

Claims 1-16 and 20 have been rejected under 35 USC §112, first paragraph. Examiner has alleged the specification not to reasonably provide enablement for any other metal than a Group 4 metal. Applicants respectfully disagree. As the Examiner is aware, enablement requires a determination of whether the disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. Accordingly, enablement is determined by the teaching of the Application as a whole and not solely by the Examples. The inclusion of metals within a metallocene catalyst is well known in the art. At numbered paragraphs [0028] Applicants disclose several synthetic methods used to prepare the recited catalysts. As such, Applicants disclose how to make the catalyst of the present invention. In numbered paragraphs [0043] to [0047], and in other paragraphs

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Applicants also disclose how to use the catalyst made according to the presently claimed invention. Accordingly, catalysts comprising metals from Group 3, and Groups 5 and 10 are enabled in the Application as filed.

Applicants have amended Claim 1, from which Claims 2-16 and 20 ultimately depend to further limit the metallocene metal to titanium (Ti.) In addition, Applicants have added New Claims 30-33 which recite the claimed catalyst having metals in Groups 3 and 5-10. Support for these amendments may be found in numbered paragraph [0019] in the application as filed.

Claim Rejections Under 35 USC §112, second paragraph

Claims 1-16 and 20 have been rejected under 35 USC §112, second paragraph as being indefinite. Examiner comments to the use of two different symbols for something that may be the same metals. Applicants assume Examiner is referring to items M and M¹. Applicants recite these two different symbols as they represent two alternative embodiments.

Examiner suggests changing "connected" in Claim 1, item (b) to ~~bonded~~. Applicants respectfully note that connected is broader than bonded, and that a ligand may be connected to a metal without necessarily being bonded to that metal. Accordingly, Applicants respectfully decline to make this amendment. The same holds true regarding item (ii) of claim 1.

Examiner rejects the use of J in Claim 1. In Claim 1, Applicants recite the variable J to be a heteratom ligand. Applicants adequately define item J in the specification at numbered paragraph [0019] of the application as filed. Accordingly, the term J is not indefinite under 35 U.S. C. §112, second paragraph.

Examiner rejects the use of D in item (e) of Claim 1, alleging that D normally means deuterium and the symbol E normally means non-metallic main group element. Applicants adequately define both items D and E in the specification at numbered paragraphs [0019] and [0020] of the application as filed. Accordingly, the terms are not indefinite under 35 U.S. C. §112, second paragraph.

Applicants have deleted the term "selected from" in Claim 1 as suggested.

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Applicants have deleted the term "selected from" in Claims 2, 3, and 20 part (b) as suggested.

The subscripts on the carbon atoms have been amended in Claim 3 as suggested.

In Claim 4, "groups" has been changed to "group", and the letter "a" has been inserted before "phenyl", as suggested.

Claims 5 and 6 have been cancelled, rendering rejection of the claims moot.

Claims 7-10 have been amended to recite a definite article after "wherein", and the comma has been removed from Claim 7 as suggested.

Claim 11 has been amended to recite a definite article after "at least one".

Claims 14-16 have been amended to recite "the group consisting of" after "selected from", as suggested.

The use of the symbol TM is objected to by the Examiner. Applicants have adequately defined TM to be titanium in the claims, consistent with 35 U.S.C. § 112, second paragraph. Accordingly, the rejection should be withdrawn.

Claim 20 has been amended to clarify that X are the same as D or E of Claim 1.

Claim 20 has also been amended to further clarify that the metal is titanium, that n is an integer from 0 to 3. In view of the different structures listed, Applicants request that items (b) and (e) be allowed to remain to further clarify the limits recited in the present claim.

Claim Rejections Under 35 USC §102 (b)

Claims 1-16 and 20 have been rejected under 35 USC §102 (b) as being anticipated by U.S. Patent No. 5,169,818 to Antberg et al. (hereinafter Antberg.) Antberg is directed to an immobile heterogeneous metallocene catalyst. However, Antberg fails to suggest or disclose using titanium as the metal. The examples and the claims of Antberg are directed to Zr and Hf, and fail to disclose Ti. Applicants presently claimed invention, as amended, recites the metal to be Ti. Accordingly, Antberg fails to disclose all the recited limitations of Applicants' presently claimed invention. As such, Antberg cannot be found to anticipate the present claims. Removal of the rejection is respectfully requested.

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Antberg also fails to disclose or suggest the limitations recited in New Claim 23, wherein two of the catalysts in the composition have different Group 3 to 10 metals. Support for this amendment may be found in numbered paragraph [00149], and in Example BP-1 of the application as filed.

Antberg also fails to disclose or suggest the limitations recited in New Claims 24-29, wherein the catalysts is limited to a formula comprising a single Cp ring and a heteroatom J. Support for this amendment may be found in the claims as originally filed.

Accordingly, Applicants respectfully request that the rejection of the claims as amended be removed, and the claims as amended be passed to allowance.

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Respectfully submitted,

Catherine L. Bell
Catherine L. Bell
Registration No. 35,444
Attorney for Applicant

ExxonMobil Chemical Company
Law Technology Department
P.O. Box 2149
Baytown, Texas 77522-2149
Telephone No. 281/834-5982
Facsimile No. 281/834-2495

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